

## Supporting Information

### *In situ* forming injectable $\gamma$ -poly(glutamic acid)/PEG adhesive hydrogels for hemorrhage control

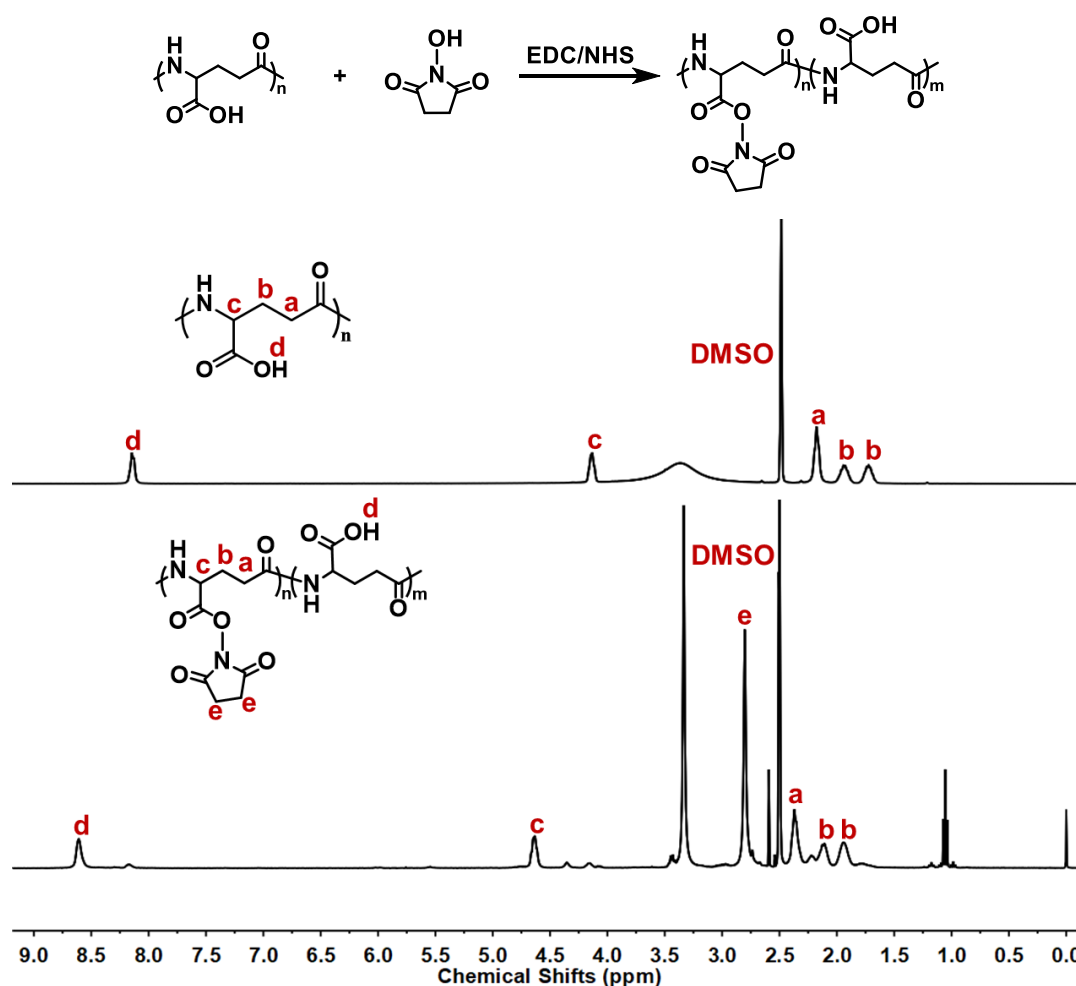
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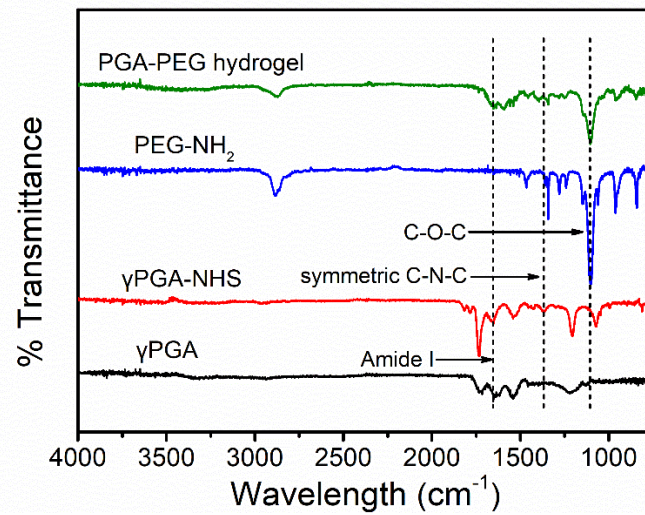
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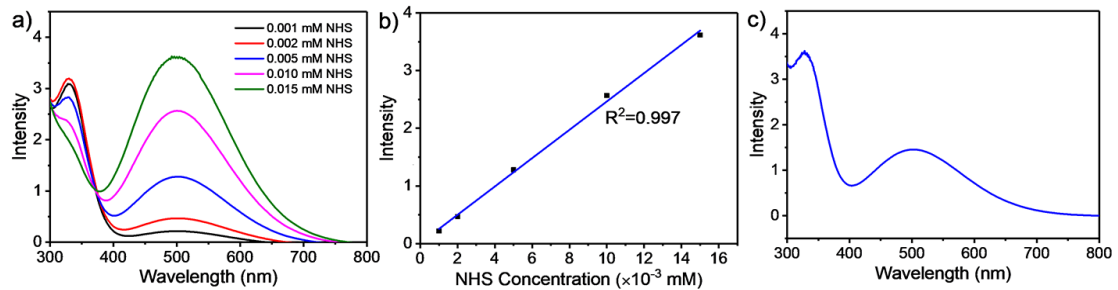
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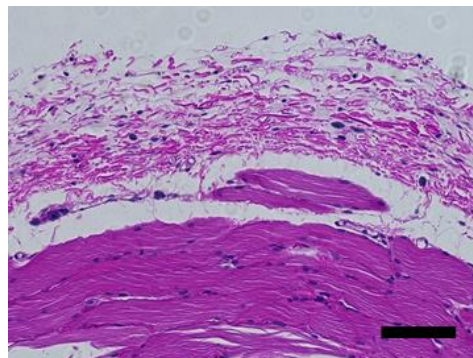
**Fig. S1** Illustration of the preparation of  $\gamma$ -PGA-NHS, and  $^1\text{H}$  NMR spectra of  $\gamma$ -PGA and  $\gamma$ -PGA-NHS.



**Fig. S2** Representative ATR-FTIR spectra of the  $\gamma$ PGA,  $\gamma$ PGA-NHS, Tetra-PEG-NH<sub>2</sub> prepolymers and PGA<sub>10</sub>-PEG<sub>20</sub> hydrogels.



**Fig. S3** a) The UV absorbance of ferric hydroxamate related to different concentrations of NHS. b) The standard curve of NHS. ( $Y = 0.246X + 0.009$ ,  $R^2=0.997$ ) c) The UV absorbance of ferric hydroxamate related to the  $\gamma$ PGA-NHS.



**Fig. S4** H&E staining result of the normal skin tissue of rats. (scale bar: 100  $\mu$ m)